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UNITED STATES DEPARTMENT OF AGRICULTURE

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CARL L. ALSBERG, Chief

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THE PRODUCTION AND CONSERVATION OF FATS AND OILS IN THE UNITED STATES.

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Since Department of Agriculture Bulletin 769 was issued new statistics on the production, importation, and exportation of fats and oils in the United States have become available. The following tables, which contain the most recent figures on the fat and oil situation, have therefore been prepared to supersede the tables originally printed. They have been compiled from data collected by the Fats and Oils Division of the United States Food Administration, and turned over by that division to the United States Department of Agriculture. This publication completes the report of the fats and oils survey conducted by the Government during 1917 and 1918. Unless otherwise stated, all figures cover the calendar year.

TABLE 1.—*Production of vegetable oils in the United States.*

Oil.	1912	1914	1916	1917	1918
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Castor	23,359,000	20,423,000	22,766,000	22,902,000	14,184,000
Coconut [1]	31,729,000	38,272,000	104,727,000	188,488,000	341,235,000
Coquito	.....	.....	803,000	.....	.....
Corn [2]	72,832,000	91,810,000	109,963,000	118,021,000	111,065,000
Cottonseed [3]	1,435,401,000	1,789,777,000	1,492,430,000	1,343,849,000	1,283,823,000
Linseed	461,656,000	507,422,000	531,586,900	482,199,000	375,452,000
Mustard seed	360,000	306,000	729,000	1,098,000	1,296,000
Olive	966,000	1,128,000	1,462,000	963,000	618,000
Palm kernel [2]	3,200,000	402,000	8,619,000	6,453,000	3,784,000
Peanut [2]	454,000	1,006,000	28,534,000	50,499,000	95,934,000
Raisin seed	320,000	435,000	752,000	667,000	586,000
Rapeseed	90,000	19,000	223,000	232,000	139,000
Sesame	.....	30,000	129,000	304,000	299,000
Shea nut	.....	.....	3,974,000	81,000	.....
Soy bean [2]	.....	2,764,000	9,920,000	42,074,000	79,861,000
Miscellaneous	1,114,000	1,568,000	2,249,000	1,268,000	409,000
Total	2,031,481,000	2,455,362,000	2,318,866,000	2,259,098,000	2,308,685,000

[1] Figures represent total production of edible and inedible oil. As the edible oil is made from the inedible oil, there may be some duplication in these figures.
[2] Figures represent total production of edible and inedible oil.
[3] Figures represent total production of crude oil only.

TABLE 2.—*Production of animal and fish fats and oils in the United States*

Product.	1912	1914	1916	1917	1918
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Bone grease	29,528,000	42,264,000	34,389,000	31,020,000	24,817,000
Cod and cod liver oil	372,000	394,000	367,000	439,000	712,000
Garbage grease	30,411,000	44,688,000	60,212,000	65,250,000	53,476,000
Herring oil	1,888,000	1,512,000	1,476,000	1,637,000	774,000
Lard [1]	727,744,000	887,580,000	1,086,581,000	868,389,000	1,008,757,000
Lard, neutral	51,414,000	51,303,000	76,163,000	52,548,000	81,289,000
Menhaden oil	33,009,000	16,265,000	20,598,000	18,640,000	12,370,000
Neats foot oil	5,181,000	5,158,000	7,239,000	8,317,000	9,764,000
Oleo stock	122,568,000	143,247,000	152,982,000	153,188,000	145,929,000
Sperm oil	4,083,000	2,495,000	4,560,000	3,567,000	743,000
Tallow [1]	202,946,000	227,339,000	275,511,000	268,825,000	304,891,000
Whale oil	931,000	632,000	1,691,000	1,193,000	431,000
Wool grease and recovered grease	7,206,000	9,370,000	14,137,000	13,839,000	21,020,000
Miscellaneous animal oils	1,980,000	1,470,000	2,649,000	2,049,000	7,559,000
Miscellaneous fish oils	1,001,000	1,333,000	1,931,000	3,078,000	954,000
Miscellaneous greases	95,277,000	133,195,000	129,571,000	113,748,000	165,509,000
Total	1,315,539,000	1,568,245,000	1,870,057,000	1,605,727,000	1,838,995,000

[1] Figures include edible and inedible product

TABLE 3.—*Estimated production of fats and oils in the United States.*[1]

Product.	1912	1914	1916	1917	1918
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Vegetable oils	2,031,481,000	2,455,362,000	2,318,866,000	2,259,098,000	2,308,685,000
Animal fats and oils	1,315,539,000	1,568,245,000	1,870,057,000	1,605,727,000	1,838,995,000
Total	3,347,020,000	4,023,607,000	4,188,923,000	3,864,825,000	4,147,680,000
Butter fat (farm) [2]	1,660,000,000	1,613,736,000	879,610,000	733,222,000	777,000,000
Butter fat (factory)	581,000,000	652,382,000	630,825,000	637,503,000	669,492,000
Total	2,241,000,000	2,266,118,000	1,510,435,000	1,370,725,000	1,446,492,000
Grand total	5,588,020,000	6,289,725,000	5,699,358,000	5,235,550,000	5,594,172,000

[1] None of the derivatives reported in Table 11 are included here.
[2] The figures for farm butter fat are based on reports from various sources, and are believed by the authors to be at least 90 per cent correct.

TABLE 4.—*Importation of fats and oils into the United States.*[1]

Product.	1912	1914	1916	1917	1918
Vegetable:	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Chinese nut oil	42,787,000	30,139,000	57,649,000	41,190,000	42,717,000
Coconut oil	46,720,000	58,012,000	64,349,000	163,091,000	356,089,000
Cottonseed oil	2,160,000	16,016,000	16,598,000	13,826,000	18,373,000
Linseed oil	2,135,000	4,350,000	711,000	633,000	196,000
Olive oil, edible	43,460,000	50,857,000	55,435,000	51,055,000	1,284,000
Olive oil, inedible	5,794,000	5,609,000	6,335,000	4,476,000	3,000
Olive foots	15,804,000	13,045,000	14,246,000	8,308,000	159,000
Palm oil	52,671,000	49,092,000	29,270,000	34,257,000	20,993,000
Palm kernel oil	27,680,000	21,089,000	4,324,000	306	34,000
Peanut oil	7,626,000	7,365,000	15,674,000	27,405,000	68,466,000
Rapeseed oil	10,266,000	11,172,000	20,181,000	10,132,000	23,079,000
Soy bean oil	24,959,000	12,555,000	145,409,000	264,926,000	335,984,000
Animal and fish:					
Cod and cod liver oil		14,198,000	10,973,000	16,618,000	8,939,000
Oleo stearin	9,178,000	4,030,000	649,000	5,555,000	1,557,000
Tallow	609,000	12,690,000	13,087,000	73,619,000	51,885,000
Miscellaneous greases	14,901,000	11,665,000	9,580,000	13,551,000	29,711,000
Miscellaneous oils	[2] 21,727,000	10,943,000	23,375,000	23,426,000	20,984,000
Total	328,477,000	332,827,000	487,845,000	752,068,000	980,453,000

[1] The figures in this table are taken from the Monthly Summary of Foreign Commerce of the United States, issued by the Bureau of Foreign and Domestic Commerce, of the United States Department of Commerce.
[2] Reported as "All fish and animal oils."

TABLE 5.—*Exportation of fats and oils from the United States.*[1]

Product.	1912	1914	1916	1917	1918
Vegetable:	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Chinese nut (tung) oil	80,000	106,000	132,000	244,000	1,105,000
Coconut oil	358,000	506,000	478,000	1,830,000	926,000
Corn oil	22,870,000	16,199,000	9,119,000	4,709,000	171,000
Cottonseed oil	355,973,000	216,410,000	188,214,000	124,730,000	119,090,000
Linseed oil	3,151,000	1,995,000	6,180,000	11,485,000	5,806,000
Olive oil, edible	59,000	52,000	392,000	436,000	155,000
Olive foots	71,000	74,000	79,000	9,000	.....
Palm oil	112,000	133,000	57,000	31,000	10
Palm kernel oil	75,000	358,000	5,000	200	1,000
Peanut oil	7,000	96,000	171,000	145,000	75,000
Soy bean oil	184,000	3,000	2,063,000	3,977,000	545,000
Stearin	(2)	(2)	1,411,000	1,262,000	1,020,000
Animal and fish:					
Fish oils (except whale)	9,375,000	1,340,000	1,059,000	956,000	4,281,000
Lard	495,093,000	438,016,000	426,660,000	372,721,000	548,818,000
Lard, neutral	57,556,000	21,798,000	27,265,000	9,423,000	6,307,000
Lard oil	1,224,000	767,000	2,679,000	1,852,000	349,000
Oleo oil	94,345,000	85,145,000	83,892,000	33,400,000	69,106,000
Stearin	1,524,000	3,239,000	13,217,000	8,295,000	10,550,000
Tallow	28,989,000	9,980,000	15,338,000	7,510,000	4,223,000
Miscellaneous greases	119,000	3,000	11,000	34,000	18,000
Miscellaneous oils	11,026,000	4,793,000	4,377,000	2,314,000	6,060,000
Lard compound	73,724,000	63,356,000	49,822,000	49,300,000	43,976,000
Oleomargarine	3,500,000	2,293,000	6,309,000	3,523,000	8,909,000
Total	1,159,415,000	866,662,000	838,930,000	638,186,000	831,491,000

[1] The figures in this table are taken from the Monthly Summary of Foreign Commerce of the United States, issued by the Bureau of Foreign and Domestic Commerce, of the United States Department of Commerce.

[2] Not reported as a separate item.

TABLE 6.—*Comparison of production with importation and exportation of fats and oils in 1918.*[1]

Product.	Produced.	Imported.	Exported.
Vegetable:	*Pounds.*	*Pounds.*	*Pounds.*
Chinese nut oil	.....	42,717,000	1,105,000
Coconut oil	341,235,000	356,089,000	926,000
Corn oil	111,065,000	.....	171,000
Cottonseed oil	1,283,823,000	18,373,000	119,090,000
Linseed oil	375,452,000	196,000	5,806,000
Olive oil	618,000	1,287,000	155,000
Palm oil	.....	20,993,000	10
Palm kernel oil	3,784,000	34,000	1,000
Peanut oil	95,934,000	68,466,000	75,000
Rapeseed oil	139,000	23,079,000	.....
Soy bean oil	79,861,000	335,984,000	545,000
Stearin	9,096,000	.....	1,020,000
Animal and fish:			
Cod and cod liver oil	712,000	8,939,000	30,000
Fish oil, miscellaneous	14,098,000	.....	4,251,000
Lard	1,008,757,000	.....	548,818,000
Lard, neutral	81,289,000	.....	6,307,000
Lard oil	44,586,000	.....	349,000
Oleo oil	147,866,000	.....	69,106,000
Stearin	95,433,000	1,557,000	10,550,000
Tallow	304,891,000	51,885,000	4,223,000
Miscellaneous greases	.....	29,711,000	18,000
Miscellaneous oils	.....	20,984,000	6,060,000
Lard compound	1,146,236,000	.....	43,976,000
Oleomargarine	332,898,000	.....	8,909,000

[1] This table includes only those items for which comparable figures are obtainable.

TABLE 7.—*Monthly production of fats and oils and their derivatives in the United States during 1918.*

Products.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
VEGETABLE OILS.												
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Castor [1]	1,442,000	600,000	599,000	565,000	441,000	678,000	770,000	492,000	569,000	268,000	104,000	188,000
Coconut, edible	6,840,000	11,327,000	15,092,000	11,368,000	12,756,000	7,922,000	6,736,000	7,232,000	7,348,000	9,483,000	5,873,000	9,327,000
Coconut, inedible	15,401,000	15,377,000	19,329,000	20,268,000	21,832,000	18,310,000	23,294,000	22,178,000	15,114,000	15,074,000	27,505,000	16,249,000
Corn, edible	7,519,000	6,230,000	7,950,000	6,946,000	6,782,000	5,697,000	6,396,000	6,283,000	4,993,000	5,334,000	4,897,000	5,313,000
Corn, inedible	1,992,000	2,701,000	2,749,000	2,758,000	2,832,000	2,439,000	2,709,000	2,727,000	2,679,000	3,242,000	2,335,000	7,562,000
Cottonseed, crude	180,560,000	154,134,000	138,618,000	101,106,000	60,593,000	26,341,000	14,726,000	12,793,000	80,634,000	160,970,000	187,035,000	166,313,000
Cottonseed, refined	144,152,000	134,870,000	166,168,000	141,376,000	86,920,000	57,739,000	36,870,000	13,738,000	26,739,000	117,475,000	143,692,000	148,819,000
Linseed	29,084,000	26,704,000	33,562,000	33,979,000	36,119,000	36,511,000	28,824,000	28,003,000	27,206,000	33,242,000	30,977,000	31,241,000
Mustard seed [1]	76,000	100,000	87,000	84,000	140,000	135,000	104,000	78,000	85,000	103,000	64,000	141,000
Olive	273,000	132,000	10,000	75,000	5,000	722	.....	.....	200	1,000	9,000	112,000
Palm kernel, edible	569,000	47,000	.....	28,000	.....	.....	.....	.....	.....	.....	.....	.....
Palm kernel, inedible	199,000	603,000	137,000	.....	549,000	93,000	493,000	594,000	21,000	.....	.....	451,000
Peanut, edible	12,905,000	5,973,000	8,775,000	6,200,000	5,993,000	2,374,000	4,194,000	6,476,000	5,574,000	1,423,000	3,761,000	6,856,000
Peanut, inedible	2,035,000	1,507,000	725,000	1,196,000	847,000	715,000	1,272,000	1,301,000	1,490,000	1,454,000	4,651,000	8,237,000
Raisin seed	.....	.....	.....	37,000	14,000	35,000	49,000	79,000	97,000	70,000	90,000	115,000
Rapeseed	.....	.....	6,000	.....	.....	10,000	1,000	7,000	62,000	52,000	750	.....
Sesame	.....	.....	.....	.....	.....	.....	48,000	132,000	16,000	103,000	.....	.....
Soy bean, edible [2]	3,789,000	4,792,000	6,608,000	4,971,000	6,089,000	2,470,000	8,663,000	7,042,000	8,119,000	6,726,000	14,125,000	5,524,000
Soy bean, inedible	144,000	161,000	267,000	107,000	.....	16,000	117,000	68,000	52,000	11,000	.....	.....
Miscellaneous	8,000	27,000	69,000	.....	.....	.....	12,000	.....	.....	155,000	.....	138,000
ANIMAL FATS AND OILS.												
Cod and cod liver oil	47,000	8,000	14,000	22,000	23,000	26,000	30,000	21,000	31,000	79,000	96,000	315,000
Herring oil	11,000	.....	.....	1,000	20,000	75,000	82,000	226,000	250,000	106,000	.....	3,000
Horse oil	8,000	19,000	71,000	88,000	14,000	25,000	40,000	30,000	239,000	250,000	41,000	48,000
Lard, edible	84,491,000	80,358,000	87,607,000	93,329,000	87,841,000	72,131,000	85,392,000	64,462,000	53,047,000	83,709,000	86,287,000	114,346,000
Lard, inedible	2,710,000	2,898,000	2,783,000	2,146,000	467,000	505,000	227,000	396,000	1,780,000	401,000	345,000	1,099,000
Lard, neutral	5,019,000	9,557,000	9,170,000	5,812,000	6,551,000	6,633,000	7,779,000	4,960,000	3,943,000	3,633,000	6,402,000	11,830,000
Menhaden oil	26,000	3,000	68,000	100,000	466,000	3,204,000	1,108,000	2,118,000	2,051,000	763,000	1,604,000	859,000
Neats foot oil and stock	746,000	676,000	613,000	581,000	692,000	776,000	773,000	864,000	721,000	916,000	718,000	1,688,000
Oleo stock	10,923,000	9,246,000	12,121,000	13,042,000	10,544,000	9,248,000	11,410,000	9,348,000	11,442,000	16,831,000	15,780,000	15,994,000
Sperm oil	338	.....	166,000	119,000	175,000	124,000	159,000	.....	.....	.....	.....	.....
Tallow, edible [1]	3,900,000	4,241,000	3,820,000	2,683,000	2,467,000	2,390,000	5,038,000	4,197,000	4,850,000	5,991,000	4,834,000	4,050,000
Tallow, inedible [1]	19,427,000	18,693,000	21,686,000	23,064,000	18,540,000	18,465,000	19,913,000	17,684,000	19,784,000	26,455,000	22,743,000	23,679,000
Whale oil	.....	.....	57,000	89,000	98,000	.....	154,000	2,000	4,000	6,000	14,000	7,000
Miscellaneous animal oils	.....	543,000	170,000	.....	6,000	882,000	1,206,000	35,000	492,000	748,000	1,585,000	1,019,000
Miscellaneous fish oils [1]	72,000	64,000	21,000	13,000	43,000	19,000	40,000	101,000	127,000	124,000	96,000	186,000

GREASES.												
Bone	2,925,000	3,106,000	2,520,000	2,347,000	2,260,000	1,808,000	2,003,000	2,336,000	1,800,000	1,605,000	959,000	1,148,000
Brown	196,000	158,000	1,074,000	1,377,000	1,382,000	1,220,000	1,403,000	1,407,000	1,448,000	1,721,000	1,389,000	2,048,000
Curriers'	148,000	54,000	18,000	25,000	88,000	19,000	3,000	39,000	38,000	38,000	44,000	33,000
Garbage	3,907,000	4,630,000	5,197,000	4,909,000	5,902,000	4,923,000	4,584,000	4,286,000	4,399,000	3,456,000	3,710,000	3,573,000
Sewer		39,000	30,000	40,000	44,000	55,000	45,000	57,000	48,000	64,000	61,000	60,000
Tankage	8,011,000	8,779,000	5,728,000	5,843,000	4,576,000	4,339,000	4,598,000	4,131,000	3,976,000	4,285,000	4,406,000	6,172,000
White	406,000	1,559,000	4,026,000	4,281,000	3,396,000	2,961,000	3,447,000	2,365,000	3,429,000	3,704,000	4,379,000	5,982,000
Wool and recovered	1,589,000	1,588,000	1,744,000	1,972,000	1,999,000	1,814,000	1,757,000	2,083,000	2,034,000	1,758,000	1,086,000	1,596,000
Yellow	550,000	559,000	2,545,000	3,197,000	2,507,000	2,578,000	4,027,000	2,465,000	2,329,000	3,240,000	3,373,000	4,746,000
Miscellaneous	103,000	349,000	1,871,000	726,000	1,286,000	1,427,000	1,478,000	474,000	1,106,000	855,000	2,541,000	485,000
DERIVATIVES.												
Acidulated soap stock	3,671,000	3,435,000	3,605,000	3,975,000	3,445,000	1,867,000	2,147,000	1,049,000	1,599,000	1,178,000	3,350,000	4,336,000
Animal stearin	1,900,000	1,368,000	1,668,000	2,621,000	2,060,000	2,029,000	2,116,000	3,088,000	3,671,000	1,626,000	1,327,000	2,200,000
Coconut olein, refined				384,000	212,000	168,000		153,000				
Cottonseed foots	14,407,000	11,078,000	13,294,000	12,517,000	9,307,000	7,255,000	4,077,000	2,388,000	3,677,000	8,216,000	11,625,000	15,751,000
Cottonseed foots (distilled)	3,536,000	3,582,000	4,824,000	5,140,000	4,424,000	2,277,000	2,278,000	2,132,000	1,038,000	3,035,000	3,467,000	2,206,000
Fatty acids	2,531,000	5,805,000	6,227,000	6,768,000	6,795,000	6,471,000	6,567,000	6,074,000	6,545,000	3,533,000	6,253,000	5,543,000
Fatty acids (distilled)	2,280,000	2,567,000	3,229,000	3,689,000	3,120,000	3,437,000	2,799,000	3,659,000	4,413,000	9,258,000	3,795,000	4,673,000
Hydrogenated fat and oil		2,830,000	4,559,000	2,752,000	3,499,000	6,818,000	2,290,000	2,690,000	3,224,000	4,585,000	6,531,000	5,994,000
Lard oil	5,259,000	2,935,000	3,685,000	1,756,000	2,483,000	2,203,000	4,242,000	4,434,000	3,987,000	4,653,000	4,210,000	4,739,000
Lard stearin	242,000	336,000	898,000	730,000	675,000	352,000	566,000	892,000	360,000	351,000	366,000	409,000
Mutton oil	5,000	25,000	28,000	25,000	16,000	9,000	19,000	24,000	52,000	62,000	21,000	62,000
Oleo oil, edible	12,888,000	11,442,000	12,774,000	17,285,000	13,202,000	12,256,000	10,297,000	8,932,000	10,864,000	13,112,000	11,972,000	11,264,000
Oleo oil, inedible	622,000			45,000	1,000	3,000	60,000	204,000		248,000	99,000	296,000
Red oil	1,691,000	2,709,000	3,828,000	4,233,000	4,166,000	3,521,000	3,272,000	2,280,000	2,604,000	3,286,000	3,389,000	3,471,000
Stearic acid	299,000	730,000	2,502,000	2,434,000	2,120,000	1,799,000	1,532,000	965,000	1,086,000	1,791,000	1,703,000	1,610,000
Tallow and oleo stearin, edible	7,195,000	5,900,000	6,767,000	9,556,000	4,588,000	6,216,000	6,809,000	4,862,000	6,062,000	8,412,000	7,624,000	8,176,000
Tallow and oleo stearin, inedible	600,000	602,000	1,389,000	1,003,000	5,259,000	427,000	1,350,000	1,084,000	533,000	220,000	549,000	259,000
Tallow oil		517,000	94,000	130,000	116,000	71,000	73,000	93,000	69,000	27,000	31,000	18,000
Vegetable stearin	57,000	357,000	308,000	395,000	1,289,000	1,164,000	1,184,000	114,000	1,335,000	1,013,000	1,530,000	350,000
Miscellaneous foots	30,000	206,000	837,000	1,676,000	1,280,000	985,000	1,593,000	793,000	941,000	763,000	1,176,000	1,498,000
Miscellaneous soap stock	319,000	154,000	2,797,000	210,000	66,000	191,000	322,000	796,000	566,000	1,128,000	1,384,000	1,235,000

[1] Figures incomplete.

[2] This is largely imported crude oil which has merely been refined in the United States.

TABLE 8.—*Consumption of fats and oils by the lard substitute industry.*

Products consumed.	1912	1914	1916	1917	1918
Vegetable:	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Cottonseed oil	866,696,000	1,053,142,000	919,447,000	1,069,214,000	1,015,051,000
Coconut oil	.....	.....	.....	5,545,000	13,408,000
Corn oil	.....	.....	13,105,000	4,166,000	2,288,000
Peanut oil	1,687,000	2,144,000	17,869,000	12,209,000	27,912,000
Soy bean oil	.....	1,585,000	14,247,000	34,351,000	56,517,000
Stearin	180,000	611,000	4,007,000	17,140,000	14,904,000
Miscellaneous oils	6,418,000	5,464,000	13,421,000	12,742,000	6,350,000
Animal:					
Pork fat and lard	1,200,000	1,290,000	1,069,000	1,004,000	1,850,000
Stearin	57,644,000	64,926,000	49,493,000	54,959,000	54,598,000
Tallow, edible	10,834,000	13,945,000	9,852,000	9,953,000	11,361,000
Hydrogenated oil [1]	.....	83,000	778,000	833,000	18,172,000
Total [2]	944,659,000	1,143,190,000	1,043,288,000	1,222,116,000	1,222,413,000
Lard substitute produced [2]	876,927,000	1,136,522,000	1,027,133,000	1,173,446,000	1,146,236,000

[1] These figures do not represent the total amount of hydrogenated oil used in the manufacture of lard substitutes, for the reason that in many instances manufacturers who do their own hydrogenating reported the amounts of oils thus treated, rather than the amounts of the hardened product. The figures here given represent largely the amount of hydrogenated oil purchased by the smaller substitute makers for combining with the other ingredients.

[2] The discrepancy between the amount of the total substitutes reported and that of the ingredients used is probably due to the fact that some manufacturers included in their reports the weight of the crude oil instead of the refined oil.

TABLE 9.—*Consumption of fats and oils by the soap industry.*

Products consumed.	1912	1914	1916	1917
Vegetable:	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Chinese vegetable tallow	2,013,000	3,485,000	5,273,000	6,417,000
Chinese nut oil	.....	.....	118,000	115,000
Coconut oil	78,816,000	77,959,000	111,084,000	168,602,000
Corn oil	9,822,000	11,368,000	12,821,000	15,997,000
Cottonseed oil	132,312,000	119,254,000	194,916,000	126,390,000
Linseed oil	1,390,000	1,034,000	803,000	1,006,000
Olive oil	690,000	748,000	1,184,000	1,731,000
Palm oil	7,546,000	71,896,000	14,938,000	27,345,000
Palm kernel oil	20,579,000	31,376,000	5,804,000	4,762,000
Peanut oil	31,000	76,000	1,181,000	15,126,000
Rapeseed oil	6,532,000	6,664,000	7,224,000	5,972,000
Sesame oil	1,110,000	11,000	8,000	5,000
Shea nut oil	.....	.....	1,058,000	2,487,000
Soy bean oil	1,182,000	4,499,000	57,373,000	124,058,000
Miscellaneous oils	9,097,000	6,637,000	7,020,000	9,692,000
Total	271,120,000	335,007,000	420,805,000	509,705,000
Animal and fish:				
Bone grease	17,526,000	16,832,000	19,535,000	37,032,000
Garbage grease	12,619,000	13,627,000	28,719,000	63,118,000
Herring oil	56,000	10,339,000	2,705,000	4,104,000
Lard	8,469,000	10,484,000	8,294,000	7,481,000
Menhaden oil	116,000	882,000	330,000	2,279,000
Neats foot oil and stock	29,000	77,000	329,000	118,000
Recovered grease	2,858,000	10,627,000	8,531,000	12,680,000
Sperm oil	9,000	7,000	14,000	17,000
Tallow	238,685,000	270,713,000	338,931,000	362,297,000
Tankage grease	28,566,000	31,822,000	35,769,000	38,303,000
Whale oil	9,927,000	4,023,000	8,126,000	5,732,000
Miscellaneous oils	4,639,000	10,909,000	11,130,000	9,490,000
Total	323,499,000	380,342,000	462,413,000	542,651,000
Derivatives: [1]				
Acidulated soap stock	20,135,000	32,075,000	20,473,000	25,086,000
Cottonseed foots	77,975,000	88,667,000	103,868,000	107,070,000
Cottonseed foots (distilled)	11,152,000	19,474,000	8,410,000	8,872,000
Fatty acids	16,735,000	20,896,000	33,720,000	35,050,000
Fatty acids (distilled)	12,765,000	14,946,000	28,195,000	39,465,000
Grease stearin	1,461,000	944,000	5,144,000	19,146,000
Lard oil	1,134,000	1,265,000	2,143,000	2,148,000
Olive oil foots	5,457,000	7,298,000	9,411,000	10,500,000
Red oil	8,723,000	10,275,000	10,230,000	12,812,000
Miscellaneous soap stock	25,000,000	25,000,000	25,000,000	25,000,000
Total	180,537,000	220,840,000	246,594,000	285,149,000
Grand total	775,156,000	936,189,000	1,129,812,000	1,337,505,000

[1] The fact that no reports for hydrogenated oil are included in this table does not mean that none is used in the soap industry. Large amounts of hydrogenated oil were substituted for tallow and other hard fats, which were abnormally high during the recent great war. The soap makers using hydrogenated oil, however, are largely producers of their own hardened fats, and have reported the oils hardened rather than the hydrogenated product.

TABLE 10.—*Consumption of fats and oils by the oleomargarine industry.*

Products consumed.	1912	1914	1916	1917	1918
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Vegetable:					
Coconut oil	293,000	112,000	563,000	19,763,000	61,773,000
Corn oil			147,000	859,000	60,000
Cottonseed oil	17,837,000	21,205,000	49,960,000	63,652,000	36,454,000
Mustard seed oil	197,000	373,000	169,000	46,000	158,000
Peanut oil	2,453,000	3,137,000	5,335,000	10,498,000	21,593,000
Soy bean oil	708,000	486,000	2,123,000	6,614,000	5,921,000
Vegetable stearin					42,000
Miscellaneous oils					124,000
Animal:					
Butter	645,000	600,000	2,152,000	3,303,000	4,548,000
Lard and neutral lard	14,794,000	19,439,000	33,446,000	42,401,000	45,702,000
Mutton oil				149,000	14,000
Oleo oil	28,145,000	46,445,000	68,989,000	96,652,000	96,378,000
Oleo stearin	906,000	2,620,000	2,036,000	2,494,000	3,427,000
Oleo stock	92,000	161,000	397,000	3,458,000	7,526,000
Tallow	16,000	329,000		77,000	982,000
Hydrogenated oil					66,000
Total	66,086,000	94,907,000	165,317,000	249,966,000	284,768,000
Other ingredients:					
Milk	11,856,000	12,799,000	21,331,000	24,410,000	61,128,000
Salt	2,096,000	2,537,000	4,088,000	6,115,000	18,279,000
Oleomargarine produced [1]	95,397,000	123,843,000	184,889,000	271,874,000	332,898,000

[1] The manufacture of the so-called nut margarines has increased greatly during the past few years. The makers of this product used a large amount of dried milk, and in some cases they have reported the weight of the dried milk instead of its equivalent in whole milk. It must also be remembered that when ready for the market oleomargarine contains from 14 to 16 per cent of water, introduced as such or with the milk and salt which are among the ingredients of this product. This in part accounts for the discrepancy between the amount of oleomargarine reported and the amount of ingredients entering into its composition.

TABLE 11.—*Production of fat and oil derivatives in the United States.*

Product.	1912	1914	1916	1917	1918
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Acidulated soap stock	32,702,000	33,025,000	26,199,000	16,151,000	33,657,000
Animal stearin	17,726,000	20,075,000	31,811,000	31,607,000	25,674,000
Coconut olein					917,000
Cottonseed foots	142,812,000	195,461,000	123,326,000	112,847,000	113,592,000
Cottonseed foots (distilled)	79,342,000	86,910,000	32,786,000	33,900,000	37,939,000
Fatty acids	15,618,000	23,463,000	20,431,000	25,446,000	69,112,000
Fatty acids (distilled)	28,476,000	32,436,000	50,016,000	55,373,000	46,919,000
Lard oil	19,812,000	22,034,000	45,413,000	37,931,000	44,586,000
Lard stearin		378	3,000	4,000	6,177,000
Mutton oil	573,000	687,000	430,000	405,000	348,000
Oleo oil	118,939,000	142,367,000	150,794,000	142,559,000	147,866,000
Red oil	27,494,000	38,109,000	38,300,000	40,160,000	38,450,000
Stearic acid	3,773,000	6,176,000	10,311,000	6,351,000	18,571,000
Tallow and oleo stearin	77,490,000	80,735,000	79,828,000	83,025,000	95,442,000
Tallow oil	5,010,000	8,103,000	6,702,000	3,761,000	1,239,000
Vegetable stearin			5,398,000	5,801,000	9,096,000
Miscellaneous foots	385,000	1,258,000	2,210,000	2,417,000	11,778,000
Miscellaneous soap stocks	10,076,000	18,095,000	11,629,000	7,457,000	9,168,000
Total	580,228,000	708,934,378	635,587,000	605,195,000	710,531,000

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